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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/621,253

07/14/2003

Sudhakar Kale

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1288

21186

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02/09/2007

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EXAMINER

DOAN, NGHIA M

ART UNIT

PAPER NUMBER

2825

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/621,253	KALE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nghia M. Doan	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-10,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-10,23 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This is a response to the communication filed on 01/22/2007, claims 8-10, 23, and 24 remain pending.

Claims 8-10, 23, and 24 have been amended.

Claims 1-7, 11-22, 25, and 26 have been withdrawn. Applicant(s) is/are requested to cancel these claims in the next communication.

The amended abstract is accepted.

### ***Response to Arguments***

2. Applicant's arguments, with respect to claims 8-10,23, and 24 have been fully considered and are persuasive. The office action mailed on 04/17/2006 has been withdrawn. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nakamura, (US Patent 5,926,398).

### ***Claim Objections***

3. Claims 8 and 23 are objected to because of the following informalities: these claims language need to be clarified, such as:

As per claim 8, line 3, after "identifying" inserts "control".

As per claim 8, line 3, after "excluding the" inserts "control".

As per claim 23, line 4, after "identify" inserts "control".

As per claim 23, line 4, after "excluding the" inserts "control".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims recited “a previously formed vector”, what is it? which one of “a previously formed vector” to be used because there has many or different vectors have been created in the previously step? And how is “a previously formed vector” relationship in functional and/or structural to other limitations?
6. Claims 8 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps. See MPEP § 2172.01. Claims 8 and 23 are missing an iterated step, a recursive step, a repeated step, or a loop which links to the limitation recited in claim 9 and/or 24, respectively, such as “identifying at least one instance of the second template using circuit connectivity and a previously formed vector is performed after all possible vectors are identified using the databus identifiers and the at least one control signals”.
7. Claims 8 and 23 provides for the use of “databus identifiers and the at least one control signals” and “circuit connectivity and a previously formed vector”, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

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8. Claims 8 and 23 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

9. Moreover, Claims 8 and 23 are rejected under 35 U.S.C. 101 non-statutory subject matter. Claims 8 and 23 appear listing an abstract idea of process steps of identifying an instance of circuit design, but do not disclose any tangible result.

10. Claims 9, 10, and 24 are also rejected under 35 U.S.C. 112, second paragraph, and/or 35 U.S.C 101 because they are depending directly or indirectly from claims 8 and 23.

### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 8-10, 23, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura, (US Patent 5,926,398).

13. With respect to claims 8 and 23, Nakamura discloses a method and computer program for arranging of a given number of functional cells with regularity, comprising:

the given number of functional logic cells (instance) (figs. 5-6) arranged based on the wiring signal and referred to the netlist (connectivity) as grouping (vector) together (figs. 3-6, 10-11, 13, and also as fig. 9, step [S12], abstract, col. 4, ll. 46-50) and rearrange these groups based on a common data signals and/or common control signal as order of the control signal (figs. 3-6, 10-11, 13, and also as fig. 9, step [S14], col. 4, ll. 59-65) associated with identifiers (figs. 5 and 6, A[0] – A[6])). The netlist includes the control signal (col. 4, ll. 40-45), which is must be generated by a logic that is not to be grouped or arranged as the given functional logic. Therefore, the logic is excluded from the group (vector).

14. With respect to claims 9 and 23, Nakamura discloses the method and computer program of claim 8 and 23, respectively, as figure 14, steps [S21], [24]-[27] emphasize that the loop repeats for grouping all possible the given number of functional cells and then reformed group previously grouping until it finish grouping (col. 6, ll. 1-27).

15. With respect to claim 10, Nakamura discloses the method and computer program of claim 8, wherein the logic design is for a datapath circuit (figs. [12A], [12B], and [13] and col. 1, ll. 17-19).

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghia M. Doan whose telephone number is 571-272-5973. The examiner can normally be reached on 8:30-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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